AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An apparatus for checking dimensional and geometric features of a pin [[(42)]], rotating about a geometric axis of rotation [[(8)]], with

[[•]] a Vee-shaped reference device [[(70)]] that defines rest and reference surfaces adapted for cooperating with the pin [[(42)]] to be checked,

[[•]] a gauging device [[(61)]] , coupled to the Vee-shaped reference device [[(70)]] and including a feeler [[(67)]] adapted for contacting the surface of the pin [[(42)]] to be checked and for performing linear displacements along a measurement direction [[(D)]] lying between said rest and reference surfaces of the Vee-shaped reference device [[(70)]],

[[•]] a support device for supporting the Vee-shaped reference device [[(70)]] and the gauging device [[(61)]], with a stationary support element [[(5)]] and a coupling mechanism, between the stationary support element [[(5)]] and the Vee-shaped reference device [[(70)]], adapted for enabling, when the apparatus is in a working condition, substantially translation displacements of the Vee-shaped reference device [[(70)]] with respect to the stationary support element [[(5)]], the coupling mechanism including:

[[•]] a first section [[(40)]] coupled to the stationary support element [[(5)]],

[[•[[an intermediate element [[(12)]] coupled to the first section [[(40]], and

[[•]] a second section [[(41)]] coupled to the intermediate element [[(12)]] and carrying the Vee-shaped reference device [[(70)]] and the gauging device [[(61)]],

at least one of said first and second sections including, in said working condition, a first substantially parallelogram structure [[(40)]] with four fulcra [[(6, 10, 13, 17)]] that define as many axes of rotation [[7, 11, 14, 18)]] parallel to said geometric axis of rotation [[(8)]] and coupling and limiting elements [[(9, 32)]] adapted for defining and setting a distance separating adjacent axes of rotation [[(7,11, 14, 18)]], said first substantially parallelogram structure [[(40)]] including at least one pair of mechanical abutments [[(38, 16)]] adapted for holding mutual contact in said working condition for defining and setting the distance separating two adjacent axes of rotation [[14, 18)]], and for remaining mutually separate in said rest position of the apparatus, and

a control device [[(80-83)]] for enabling the apparatus to displace in an automatic way from a rest position to said working condition, and vice versa.

2. (Currently Amended) The apparatus according to claim 1, wherein said first substantially parallelogram structure [[(40)]] includes an additional pair of mechanical abutments [[(39, 20)]] adapted for holding mutual contact in said working condition.

3. (Currently Amended) The apparatus according to claim 2, wherein said coupling and limiting elements include at least an elongate coupling element [[(9)]] defined between two adjacent fulcra [[(6, 10)]] and a stem [[(32)]] arranged – in said working condition – between the other two fulcra [[(13, 17)]], the stem [[(32)]] being coupled to said elongate element [[(9)]] and arranged, in an axially movable way along a direction substantially parallel to said elongate element [[(9)]], the ends [[(38, 39)]] of said stem [[(32)]] and elements [[(15, 19)]] integral with said other two fulcra [[(13, 17)]] defining the mechanical abutments [[(38, 16; 39, 20)]] of said at least one and additional pairs.

4. (Currently Amended) The apparatus according to claim 3, wherein said elements integral with said other two fulcra [[(13, 17)]] are bearings [[(15, 19)]] with associated external cylindrical surfaces [[(16, 20)]] that define mechanical abutments of said at least one and additional pairs.

5. (Currently Amended) The apparatus according to claim 3 [[or claim 4]], wherein the coupling and limiting elements include a support and guide element [[(30)]] with a substantially tubular shape, fixed to said elongate coupling element [[(9)]] and adapted for housing the stem [[(32)]] and guiding its displacement.

6. (Currently Amended) The apparatus according to claim 5, wherein the displacement of the stem [[(32)]] with respect to the support and guide element [[(30)]] is limited by internal abutment surfaces [[(35, 36)]] defined at the interior of said support and guide element [[(30)]], a spring [[(37)]] being provided for urging said internal abutment and surfaces [[(35, 36)]] into mutual contact when the apparatus is in the rest position.

7. (Currently Amended) The apparatus according to claim 6, wherein the displacement of the stem [[(32)]] with respect to the support and guide element [[(30)]] is limited by an abutment ring [[(34)]] adjustably coupled to the stem [[(32)]], at the exterior of said support and guide element [[(30)]].

8. (Currently Amended) The apparatus according to [[one of]] claim[[s from]] 2 [[to 7]], wherein the mechanical abutments [[(39, 20)]] of said additional pair are adapted to be in mutual contact when the apparatus is in the rest position.

9. (Currently Amended) The apparatus according to [[one of the preceding]] claim[[s]] 1, wherein the other of said first and second section includes a second substantially parallelogram structure [[(41)]].

10. (Currently Amended) The apparatus according to claim 9, wherein said second substantially parallelogram structure [[(41)]] includes two additional coupling elements [[(54, 55)]] and two pairs of fulcra [[(50, 51, 56, 57)]] that define four axes of rotation [[(52, 53, 58, 59)]] parallel to said geometric axis of rotation [[(8)]].

11. (Currently Amended) The apparatus according to [[one of the preceding]] claim[[s]] 1, wherein said support device includes an elastic thrust device [[(22)]] located between the elements of the first and the second section and adapted for applying a force of reciprocal attraction between said first and second section.

12. (Currently Amended) The apparatus according to [[one of the preceding]] claim[[s]] 1, for checking the diameter and the roundness of a pin [[(42)]] orbitally rotating about a geometric axis of rotation [[(8)]], in the course of the machining in a numeric control grinding machine including a worktable [[(73)]] defining said geometric axis [[(8)]] and a grinding-wheel slide [[(1)]] carrying a grinding wheel [[(4)]], wherein said stationary support element [[(5)]] is coupled to the grinding-wheel slide [[(1)]].